

Tarred and stunned, birds lovingly revived

By Michael Collier
The Tribune

MON APR 25 1988

If not for their beaks and webbed feet, the blackened birds could be mistaken for globs of tar.

Crude oil glued to their once-fluffy bodies, the stunned fowl were pulled from cardboard boxes as gently as possible and laid down at Berkeley's Bird Rescue center and the Lindsay Museum nature center in Walnut Creek.

Once there, rescuers wrapped the birds in old towels and sheets to keep them warm, then fed them and placed them in cages.

Later, the birds were washed one at a time with a mild solution of dishwashing detergent.

The ritual will be performed over and over again for the next two weeks until the birds are strong and the oil is gone from their feathers, said officials at the rescue centers.

About 75 ducks, egrets, other water birds — and even a couple of turtles — have been rushed to the centers after being caught in a weekend oil spill at the Shell Oil Co. refinery in Martinez. At least another 75 animals have died.

All of the animals at the centers were said to be in stable condition last night.

"They're alert, but they're still quite stressed out," said Jay Holcomb, associate director of the Berkeley rescue center, where about 40 birds arrived yesterday afternoon.

Diane Granados, operations manager of the Lindsay Museum, said she and two dozen volunteers worked until 7 a.m. yesterday bathing and caring for 35 birds rescued late Saturday.

"I think all of the animals here are going to survive," Granados said.

More oil-coated birds are expected to be brought to the rescue centers today as state biologists continue to search a 100-acre marsh choked by the spill.

The animal caretakers at the Berkeley and Walnut Creek centers, who typically receive waterfowl and wildlife injured by oil spills, said the birds brought in over the weekend are among the most contaminated they've ever seen.

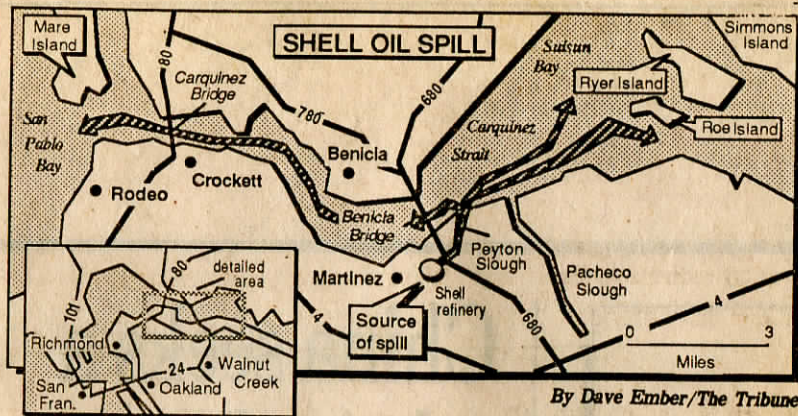
"They're so heavily oiled that it will take at least 10 washings to get the stuff out," said Holcomb.

Between washings the birds are cloaked to keep them from "preening," or cleaning their feathers with their beaks, which could cause them to ingest toxic oil, Holcomb said.

After they are cleaned, the ducks are allowed to splash around in wading pools to reacquaint them with the water. A few days later they are taken back into the wild.

Granados said disasters like the latest oil spill always attract a flock of human volunteers to care for the injured animals.

"This kind of thing brings out the best in us," she said.



Contra Costa calls for full investigation of spill

WED APR 27 1988

By Larry Spears
The Tribune

MARTINEZ — Responding to the massive Shell oil spill, Contra Costa County Supervisors yesterday called for a full investigation, increased monitoring for leaks and a "slough sleuth" to patrol the county's waterfront.

"Why can't there be an invention that detects oil in water and sounds an alarm?" asked Supervisor Sunne Wright McPeak.

The board asked for a full investigation of the Shell plant and its monitoring system.

"We need to know how far from the source the spill was first detected, how long it took to notice it and how many gallons were lost during that period," said Supervisor Tom Powers.

"It took so long to be detected," he said. "There ought to be a system for early detection so the damage can be mitigated early."

McPeak and Supervisor Nancy Fahden proposed permanent booms that would impede spills before they reached creeks and tributaries.

Fahden proposed a commission or full-time inspector, a "slough sleuth," who would monitor shorelines and respond to a citizens' hotline.

She asked the county health department to speed up a report the board requested when she first made the proposal two months ago. Since then, she noted, a small Shell oil spill leaked into Walnut Creek earlier this year.

Fahden said contributions from wetlands industries or money from the hazardous waste tax on industries passed by voters last November could pay the \$100,000 yearly cost of the program.

Fahden, founder of the Martinez Water Front Park and 698-

acre Point Edith Marshlands Reserve to the east, said she cried Sunday when she saw the spill. From her home, she can see the Peyton Slough marsh where the leak was discovered.

Shell environmental conservation manager Judith Moorad said booms would not be practical because the marsh is large and the waterways running through it are numerous. Shell inspectors regularly check dis-

charge points, she said, but not around the clock.

Jim Simmons, spokesman for the Tosco refinery nearby, said the "ideal is a system that doesn't let it (the spill) get that far." Tosco's plant, he said, confines oil to the refinery site. A leak would be caught in an "oily sewer" leading to the plant's wastewater treatment plant, he said, or in the plant itself.

Martinez slick killing birds and animals

MON APR 25 1988

By Michael Collier
The Tribune

MARTINEZ — Brisk winds and tides stretched a 21,000-gallon oil spill into a 10-mile-long slick in the Carquinez Strait yesterday, while state wildlife officials plucked dozens of dead and injured birds from a marsh smothered by sticky crude.

Clean-up crews battled the two-day-old spill, which is five times larger than first estimates, with a half-dozen oil-absorbing rigs. They blocked off other marshes along the channel to keep the thick crude oil from threatening more birds and river otters listed as endangered species.

The unrefined oil gushed from a holding tank Saturday at the Shell Oil Co. refinery in Martinez. Shell officials said yesterday the company would pay all clean-up costs and any fines associated with the spill.

By last night, state Fish and Game Department officials had pulled more than 150 birds from a marsh, known as Payton Slough, which was inundated by oil.

Half of the birds survived and, packed in cardboard boxes, were rushed to animal rehabilitation centers in Walnut Creek and Berkeley.

Dead animals taken from the marsh included ducks and several muskrats.

Coast Guard officials said the spill was the largest to contaminate Bay Area waters in two years, and could take weeks to clean up. Initially, it was reported 4,000 gallons of oil had leaked.

"We're calling this a major spill," said Capt. David Zawadzki, the Coast Guard commander at the scene. "We have quite a mess."

Pleasure boaters were advised to steer clear of the Carquinez Strait between the Carquinez Bridge and Suisun Bay



By Gary Reyes/The Tribune

Workers from Erickson Company begin clean-up operations at site of spill in Martinez.

until the slick is cleared.

Zawadzki said crews from Clean Bay Inc., a cooperative funded by oil companies with Bay Area operations, would work around the clock in a bid

to keep the oil from spreading to San Francisco Bay and marshes along the channel.

The marshes of the Bay and Delta are home to several endangered species, including the

river otter, salt marsh harvest mouse and the California clapper rail and black rail, both birds.

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By midday yesterday the slick had reached the Benicia side of the channel, lapping up against a group of mothballed World War II navy ships.

But most severely damaged by the spill was Payton Slough, the 100-acre fresh-water marsh near the leaky tank, where three-quarters of the spilled oil may have settled, officials said.

The marsh sits in the shadow of the Shell and Tosco oil refineries just east of the I-680 approach to the Martinez-Benicia Bridge.

State wildlife officials said more than 1,000 birds — mostly

ducks and a smattering of egrets and avocets — used the marsh as their habitat.

"Hundreds of them are probably flying around with oil on them," said Joe Baima, a state game warden assisting in the rescue.

State biologist Jim Swanson said the ecological disaster would have been worse had the spill happened four months ago during the height of winter nesting, when thousands more birds were in the marshes along the Contra Costa shoreline.

"This is bad enough," Swanson added. "I just hate to see birds get so oiled up."

He said it might be necessary

to dredge the marsh because the contamination was so severe. That would mean it could take years before the marsh was restored, Swanson said.

Shell Oil officials said the spill was discovered by Tosco refinery workers as it reached the Carquinez Strait Saturday.

The leak was traced to a 3-year-old holding tank sitting in a group of other tanks about a mile from the shoreline, said Shell spokesman Bill Sharkey.

"We plugged the leak and immediately had booms sent out to keep the oil from drifting to the Martinez wharf," said Sharkey.

He said the oil, known as San Joaquin crude because of its ori-

gin near Coalinga, had spilled from the tank for "several hours" before detection.

"It certainly will be expensive to clean this up," the spokesman said, "but we're paying."

The clean-up costs could reach hundreds of thousands of dollars.

Officials from the regional Water Quality Control Board, which can levy fines for chemical discharges into waterways, were investigating the spill yesterday.

The last big oil spill in the Bay Area occurred in February 1986, when a barge in tow off the Golden Gate fouled the coastal waters and shoreline from Marin County to Half Moon Bay.

Nearly half of oil from Carquinez spill removed

THU APR 28 1988

By Andy Jokelson
The Tribune

MARTINEZ — Nearly half the oil that spilled from a Shell refinery tank over the weekend here has been recovered and all major slicks in the open water have been removed, relieved authorities reported yesterday.

Meanwhile, state Department of Fish and Game officials expressed hope that oil-laden marshland along the Contra Costa County shoreline of Carquinez Strait could be restored by next year, though others weren't as optimistic.

Fish and Game reported that the death toll from last weekend's 175,000-gallon spill has risen to at least 130 birds, most of them ducks, plus about 20 muskrats and marsh rats. More than 200 other birds have been taken to wildlife rehabilitation centers after being coated with oil.

"This is the largest spill into the Bay in many years and it has had a devastating effect on Peyton Slough and the wetlands that surround it, as well as on the wetlands to the east," said Larry Kolb, assistant executive officer of the state's Regional Water Quality Control Board.

For Peyton Slough, where an estimated 80 percent of the spilled oil has been contained, the spill has been an ecological disaster, Kolb said.

Clam beds in shoreline mud-

flats surely have been polluted because "that impact was unavoidable when there was that degree of crude oil contamination," said Kolb.

But Brian Hunter, regional manager for Fish and Game, which will oversee marsh restoration efforts, said that, while the spill is a serious problem, he doesn't consider it a long-term environmental disaster.

"In most of the areas that are affected, we should have functioning marsh within a year," he said. He said the condition of Peyton Slough is "the most questionable."

"We're going to make every effort to restore this marsh by next summer (1989)," said Capt. Ryan Broddrick of Fish and Game, though there are "no pat answers on how to restore a marsh."

He said Fish and Game is test-spraying water on the top 10-20 inches of bulrushes in Peyton Slough at high tide without disturbing their roots to see whether that cleanses them of their coating of oil.

Environmental consultant Bob Coats, who has handled wetlands restoration projects, speculated that it might take two to five years to restore the marsh, largely depending on the level of tidal flushing.

Marine biologist Wayne Sousa of the University of California at Berkeley, said that if the oil is "in the sediments, it could be a long time before anything could re-grow there."

Marsh restoration efforts will commence when the removal of floating oil from Peyton Slough, the shoreline and open water is completed.

Coast Guard and water quality officials estimated that about 2,000 barrels of oil, or about 84,-

000 gallons of the 175,000-gallon spill, had been recovered by yesterday afternoon.

Vacuum trucks have been sucking oil out of Peyton Slough and shoreline areas, including the Martinez and Benicia waterfronts, while Navy and industry boats have skimmed the open water.

Three slicks, which had floated Tuesday along Carquinez Strait and into San Pablo Bay, were removed before they reached sensitive marshes at the north end of the Bay.

"It's substantially cleaner than it was on Monday," said Coast Guard spokesman Ken Freeze.

Stretches of light, rainbow-hued sheen from the oil have dotted various spots in Carquinez Strait, Suisun Bay and San Pablo

Bay. But Coast Guard officials say it is not environmentally dangerous.

Most of the oil that formed a black ribbon along shoreline near the Martinez Marina was removed by California Conservation Corps workers, though shoreline rock and sand are still coated with it.

"It's really starting to look very much better," said Barry Wysling, harbormaster of the marina, which has been closed since Saturday.

As pockets of oil break away from shoreline areas into open water on outgoing tides, they have been collected by skimmer boats. Booms were placed across inlets to Fish and Game's Point Edith Ecological Reserve east of Peyton Slough to prevent oil from contaminating it.

Shell Oil's cost of oil spill hard to figure

SAT APR 30 1988
By Kevin Fagan
The Tribune

Figuring Shell Oil's cost in fines and cleanup of the massive spill last weekend could be as slippery as the oil slick itself.

In fact, in one humorous and unlikely scenario, the state as of yesterday owes Shell money. That's because the amount of oil mopped up so far greatly exceeds the amount Shell thought was spilled in the first place.

The oil company will have to pay federal, state and local agencies, depending upon how long the cleanup takes, how much oil is not recovered and how much damage is done to the environment and wildlife.

The state Regional Water Quality Control Board can assess up to \$25 per gallon of unrecovered oil.

Shell estimated in midweek that it spilled about 175,000 gallons. But by yesterday, close to 300,000 gallons were mopped up, turning the calculations inside out.

Under the circumstances, the state could owe the company, cracked Larry Kolb of the Water Quality Control Board.

That's impossible, but it points up how preliminary the cleanup and fine assessment is now, Kolb said.

It will be at least a month before the picture becomes clear, and the board won't calculate what it wants to seek until July, Kolb said.

Shell officials are equally in the dark about the total amount of fines. Cleanup costs alone are expected to run into the millions of dollars.

"Quite frankly, we haven't paid too much attention to it — we've had more important things on our minds, like clean-

ing the place up," said Gene Munger, Shell's West Coast public affairs manager.

"We have no precedent for this. It's the biggest spill (Shell has) ever had on this coast.

"We expect to be fined, obviously. And we're cooperating with everyone as best we can."

In addition to the state, the federal Fish and Game Department and Environmental Protection Agency will be assessing fines.

Officials for both agencies said fines probably will exceed several thousand dollars, but that's as far as they could go without further assessment of the spill.

The EPA will calculate its fines under four different batteries of Clean Water Act regulations, said Kathleen Schimmin, co-chairperson of the agency's regional response team.

EPA's fines would be based mostly on Shell's violations concerning the drainage system that allowed the spill to occur.

Fish and Game's fines will be based on pollution violations and loss of wildlife.

Last, there are potential lawsuits and penalties by whichever local agencies and private parties in the spill area want to get into the act.

The litigants and penalizers could include anyone from the Navy to the City of Martinez — but again, assessments are still preliminary, according to Fish and Game Regional Patrol Chief Chuck Monroe.

"It's impossible to say right now," he said. "But just knowing what costs could be from a big spill like this, I'd say they'd be looking at \$2 million or more" in cleanup and fine costs.

Crews now concentrating mainly on marsh areas

By Andy Jokelson
The Tribune

oil FRI MAY 6 1988

MARTINEZ — Cleanup crews sopped up more oil yesterday in marsh land and shoreline locations, sprayed rocks with hot water and pruned blackened portions of plants marred by a massive refinery tank spill.

Workers water-blasted shoreline rocks near the Martinez Marina with high-pressure sprays to remove oil that was then collected with absorbent pads.

Other crews were in Shell Marsh with vacuum trucks, rakes and gas-powered cutting tools, and were washing oil off tules with water sprays.

The cleanup in Carquinez Strait and Suisun Bay from the spill, which flowed there from Peyton Slough, is largely completed. Oil patches that break loose from shoreline pockets because of tidal flushing are still being collected, but "now the whole concentration (lately) has been the cleanup of the marsh area," said Hossain Kazemi, an engineer for the state's Regional Water Quality Control Board.

Authorities say more than 700,000 gallons of oil and water have been collected in the cleanup since the spill was discovered 13 days ago, but how much of it is oil has not been pinpointed.

Most recent estimates of the amount of the spill from a Shell Oil storage tank into Peyton Slough near here have ranged from 175,000 gallons to 300,000 or more.

Kazemi said Shell is exploring "every technique possible to get a good number." Shell has accepted responsibility for the spill and is paying cleanup and restoration costs.

More than 150 animals, most of them birds, have died as a result of the spill. More than 350 others that survived were taken to wildlife rehabilitation centers for cleaning, says the state Department of Fish and Game.

Shell doubles estimate of oil spill

SAT MAY 2 1 1988

By Marie Felde
The Tribune

MARTINEZ — Shell Oil officials yesterday more than doubled their estimate of how much heavy crude oil spilled from a huge storage tank into the Delta a month ago, setting the total at 365,400 gallons.

The latest figure, said Shell spokesman Bill Sharkey, remains only an estimate based on a formula commonly used when extracting oil from a drilling mixture of oil, water and sand. The final amount could be as low as 294,000 gallons or as high as 441,000 gallons, he said.

Independent consultants will review

the company's calculations to determine the final total in the two-day leak that began April 22.

Estimates of the amount of oil that blackened a nearby marsh and then flowed out to open waters in Carquinez Strait have been in flux since the first report set the spill at 4,000 gallons. That was quickly upgraded to 21,000 gallons on April 24 and to 176,000 on May 2.

Although the estimates have varied widely, Roger James, Regional Water Quality Control Board executive director, said he believes the 365,400 figure he received yesterday is probably close to the correct amount.

"They (Shell officials) have been open and honest with us. Shell relied on

the people who operated the system and they have been under pressure" since the spill occurred, said James.

Several organizations began to question the May 2 estimate as the amount of oil recovered by cleanup crews from the marsh, open waters and shorelines from Martinez to Mare Island in Vallejo grew.

"The good news is that the job of cleanup is almost done. Workers are now on their hands and knees to clean up small puddles," said Sharkey.

At the direction of the state Department of Fish and Game, Shell is draining the 100-acre marsh.

Grasses will then be mowed to re-

total: 365,400 gallons

move the stickiest remaining oil and the marsh reflooded in October "to put it in condition to allow it to recover," said Fish and Game biologist Mike Rugg.

Cleanup efforts have already cost Shell more than \$4 million. Because fines from regulatory agencies are based on the gallons spilled, Shell could face more than \$7 million in fines from the Water Quality Control Board alone.

The state Attorney General's Office is meeting with state and local agencies to determine what actions it will take against Shell.

Sharkey said the error in the May 2 calculation occurred when technicians wrongly subtracted from the total a set

percentage for sediment and water.

That's what they routinely do when figuring payment for how much usable oil is being pumped from the oil fields into the company's storage tanks, said Sharkey.

Although that percentage is small, only 1.7 percent, it became a sizable amount when factored in to the more than 13.23 million gallons of oil that flowed from the pipeline through the leaking storage tank and two others during a 48-hour period beginning April 22, Sharkey said.

He said it is still not known how long the tank leaked into a drain pipe and out to the marsh.

Feathered victims of oil spill happily returned to the wild

The Tribune SAT MAY 14 1988

HILL SLOUGH — About a dozen victims of the April 23 Martinez oil spill, cleaned of the oil that had coated their feathers, were released here yesterday and took to their new home like, well, ducks to water.

The ducks, mostly mallards and pintails, are among the first of the oil-slaked birds to be returned permanently to their natural habitat.

The birds had been cared for at the International Bird Rescue Research Center in Berkeley

and were released to a Fish and Game owned marsh on Suisun Bay near Fairfield about noon yesterday.

More than 400 birds caught in the heavy crude oil that seeped from a Shell Oil tank and blacked a nearby marsh were taken to the rescue center.

Meanwhile, Fish and Game officials are considering requiring that Shell drain the 100-acre marsh so the remaining oil can be scraped out and the marsh rehabilitated.

Shell to pay record fine for '88 Martinez oil spill

By Marie Felde
The Tribune

WED NOV 29 1989

MARTINEZ — In what is reported to be the largest oil spill fine in California history, Shell Oil Co. will pay \$19.75 million in damages caused by an April 1988 spill of crude oil here, The Tribune learned yesterday.

The settlement with the state attorney general is in addition to \$14 million Shell has spent cleaning up the spill, Shell spokesman Bill Sharkey said yesterday.

Details of the settlement are

to be formally announced by the Attorney General's Office today.

Yesterday, however, Martinez Mayor Michael Menesini said the agreement includes \$4.7 million in civil penalties, \$1.3 million for new environmental studies and \$11 million to enhance and restore wetland areas.

By the time the spill was stopped, more than 400,000 gallons of heavy crude oil from a Shell storage tank had covered a

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one-mile stretch of Peyton Slough with a layer 18 inches thick — smothering birds, turtles and other marine life.

Some of the oil then oozed into the Carquinez Strait where oil washed ashore, fouling 11 miles of shoreline from Martinez to Benicia and Vallejo.

The mop-up operation took nearly six months and was the most extensive in the state's history, according to Fish and Game Department officials.

"This \$19.75 million agreement is the largest monetary settlement of an oil spill in the history of the State of California," Menesini said in a prepared statement.

"It provides a clear warning that harm to our environment will not be tolerated," he said.

The City of Martinez will receive \$500,000 to enhance fishing facilities along its shoreline and at its marina, as well as \$250,000 in additional compensation, he said.

Others included in the settle-

ment are the counties of Contra Costa and Solano, the East Bay Regional Park District, the Bay Conservation and Development Commission, the Regional Water Quality Control Board, the City of Benicia and the state Department of Fish and Game.

A committee of state, local and federal representatives will administer the \$11 million wetlands restoration fund, said Menesini.

There apparently have been disputes among the agencies over where the money should be

spent, with some Eastbay officials determined that it be used in and around the wetlands damaged in Martinez, according to a source involved in the negotiations.

The spill occurred when a valve in a holding basin was left open, against company rules.

The basin usually catches rain water, but a rupture in a continuously filling storage tank nearby caused the basin to fill with oil and the open valve allowed it to flow freely into the marsh along Peyton Slough and into the strait.